

ANNEX – GOOD PRACTICES

MAINTENANCE AND INSPECTION OF SANITARY SYSTEMS

1. Provide an adequate maintenance and inspection regime for the sanitary system which should incorporate the following:
 - Conducting regular visual checks of your sanitary system at least once every 3 months to ensure that the sanitary pipes or sewers are conveying used water smoothly from the premises to the public sewers. Look out for signs of pipe leakage, poor conveyance such as ponding in the inspection chambers or slow draining of used water through sanitary fittings and appliances (e.g. floor traps and sinks).
 - Flushing of sanitary system at least once a year. Increase flushing frequency for choke-prone areas.
 - When flushing the sanitary pipes, ensure that the appointed contractor places a net / grit catcher downstream of the pipes to capture any debris/solids and remove it, instead of simply flushing the debris/solids downstream to the sewers.
 - CCTV inspection of sanitary system at least once every 10 years. This is to check for any structural defects, grease encrustation, signs of corrosion and leakage.
2. Prepare and keep a drawing of the sanitary system network / piping layout at your premises. This will enable you to easily identify any issues and quickly carry out the necessary rectification works.
3. Ensure no bulky items are obstructing access to the sanitary system (e.g. floor traps, waste sumps and inspection chamber). Access covers shall be kept free from obstruction to enable cleaning, clearing of chokes and facilitate inspection.
4. Keep records (e.g. maintenance reports, invoices, log/activity sheets) of the regular maintenance works carried out for the sanitary system. These records should state the dates and nature of maintenance works done and should include photographs of maintenance works done. PUB carries out random audit checks of the maintenance of sanitary system and you will be required to produce the records of the inspection and maintenance works for checking when requested.
5. Take immediate action to rectify any defects in your sanitary system (for example, leaking or broken pipes, damaged inspection chamber cover, and damaged grease trap cover). While carrying out the repair works, also provide interim safety measures such as barricading the damaged part of the system, and displaying warning signs prominently around the area, until the repair works are completed.
6. Inspect and seal / repair / replace any defective inspection chamber frames / covers to prevent any stagnant water that could lead to mosquito breeding.

7. Engage licensed plumbers / professional engineers to submit design of sanitary system, and contractors / licensed plumbers to carry out sanitary works in accordance to the Sewerage and Drainage (Sanitary Works and Sewerage Works) Regulations and PUB's Code of Practice on Sewerage and Sanitary Works. Sanitary works in existing buildings should only be carried out after obtaining PUB's approval. For additional information, please refer to <https://www.pub.gov.sg/usedwater/forms>.
8. Ensure that used water from sanitary facilities (including washing machine) is discharged into the sanitary system and rainwater is channelled away from the sanitary system. proactively inform and regularly remind owners/occupiers that they should not cause improper discharge of used water into the storm water drainage system. Distribute relevant educational materials (enclosed) every 6-12 months as a reminder for the owner/occupier as there could be changes in ownership or tenants.

MAINTENANCE AND INSPECTION OF SANITARY SYSTEMS AND GREASE TRAPS FOR FOOD ESTABLISHMENT

9. For food establishments, in addition to paragraphs 2-8 above, provide a more stringent maintenance and inspection regime (compared to paragraph 1) for the sanitary system which should incorporate the following:

- Conducting regular visual checks of your sanitary system at least once every month to ensure that the sanitary pipes or sewers are conveying used water smoothly from the premises to the public sewers. Look out for signs of pipe leakage, poor conveyance such as ponding in the inspection chambers or slow draining of used water through sanitary fittings and appliances (e.g. floor traps and sinks).
- Flushing of all sanitary pipes at least once every 6 months. These include flushing of the floor traps, discharge stacks and any horizontal offsets, underground and aboveground discharge pipes, inspection chambers and waste sumps. Increase flushing frequency if your premise is prone to chokes.
 - When flushing the sanitary pipes, ensure that the appointed contractor places a net / grit catcher downstream of the pipes to capture any debris/solids and remove it, instead of simply flushing the debris/solids downstream to the sewers.
- Cleaning of grease traps (including screen chamber) once every 2 weeks. Increase cleaning frequency if your culinary water contains a higher Fats, Oil, and Grease (FOG) loading
- CCTV of aboveground and underground sanitary pipes serving the hawker stalls once every 5 years. This includes the common discharge pipes and drain-lines.
- Visual inspection by Licensed Plumber once every 5 years to look out for the following:
 - Signs of leak or corrosion on overhead sanitary pipes
 - Sunken pipe (could be a sign of loose brackets)
 - Gradient of pipes (to ensure sewage able to flow and not stagnate)
 - Drip trays (if any) provided with drain-off pipe to nearest floor trap
 - Grease traps (including screen chamber) are well maintained
 - Inspection chambers (ICs) and drain-lines are in good condition

10. Adopt source control practices to reduce the discharge of FOG, food waste and other solids into your sanitary system, including grease traps. Source control practices include:

- Keep floor traps closed at all times and provide strainer cups
- Dispose food waste from the food preparation area into a rubbish bin
- Dispose leftover food from soiled utensils and plates into a rubbish bin
- Use a catch basket to capture food waste that are washed into sink
- Pour used oil into a separate container and not into the sanitary system
- Throw used sanitary pads into a bin; not flush them down the toilet bowl

11. Establish an adequate inspection and maintenance regime for grease trap, including the following:
 - Inspect your grease trap screen chamber and strainer bucket on a daily basis and clear them to prevent built-up of debris.
 - Engage a NEA-licensed general waste collector to clean your grease trap on a regular basis. Supervise your licensed waste collector to ensure that cleaning is carried out in accordance with our recommended cleaning steps.
 - Establish an appropriate maintenance cleaning frequency for your grease trap so that the trade effluent that is discharged from your grease trap can comply with oil-and-grease (non-hydrocarbon) discharge limit of 100mg/L. As a guide, a cleaning frequency of (including screen chamber) once every 2 weeks is recommended for eating establishments. However, if your culinary water contains a higher FOG loading, you have to carry out more frequent cleaning.
 - Consider increasing the maintenance frequency during the peak periods, e.g. festive seasons as your culinary water may contain a higher FOG loading during these periods.
 - Conduct sampling of effluent discharged from your grease trap to check concentration of oil-and-grease (non-hydrocarbon) present in it. You may engage an accredited laboratory to collect samples and analyse it. Please refer to the Singapore Accreditation Council (SAC) website at <http://www.sac-accreditation.gov.sg> for a list of accredited laboratories.
12. Inspect and ensure that your grease trap(s) is in good physical condition and repair / replace any defective covers immediately so that they cannot pose a tripping or other safety hazard to public.
13. Keep records (e.g. invoices, log/activity sheets) of regular maintenance works carried out for your grease trap(s) and make these records available at your premises for inspection.
14. Engage qualified persons such as professional engineers, contractors, plumbers, or grease trap suppliers to assess if existing grease trap is adequate for current oil and grease loading to your grease trap. You should install additional grease traps to cope with any increase in loading.